



CITY OF SHORELINE 2015 STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN

Prepared February 2015



Figure 1 North Fork Thornton Creek LID Stormwater Retrofit Project Before and After

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Introduction

Purpose of the Stormwater Management Program Plan

This document is the City of Shoreline's 2015 Stormwater Management Program (SWMP) Plan. The purpose of the document is to comply with requirements of the *Western Washington Phase II Municipal Stormwater Permit* (the Permit). Specifically, under Section 5.C of the Permit, the City of Shoreline must prepare the SWMP Plan to inform the public of the planned SWMP activities for the upcoming calendar year. This SWMP Plan covers the period between January 1, 2015 and December 31, 2015. It must be posted on the City's website by May 31, 2015.

The NPDES Program

The National Pollutant Discharge Elimination System (NPDES) is a program created under the Federal Clean Water Act, with authority over the Permit given to Washington State Department of Ecology (Ecology). Ecology issues Permits to governmental and private entities. The intent of the NPDES is to protect and restore water quality in lakes and streams so that they can support "beneficial uses" such as fishing and swimming. Governmental and private entities wishing to discharge water or wastewater to surface waters regulated by the Federal Government ("waters of the state") must obtain permits and comply with conditions of the permit.

The Western Washington Phase II Municipal Stormwater Permit

The City of Shoreline has been operating under an NPDES Permit since 2007. The current Permit covers the period from August 1, 2013 to July 31, 2018. The Permit allows municipalities to discharge stormwater from municipal systems into "waters of the state," as long as they implement programs to reduce pollutants in stormwater to the maximum extent practicable (MEP), apply all known and reasonable technologies (AKART) to address stormwater pollutants, and protect receiving waters from degradation.

This SWMP Plan follows the organization of Section 5.C of the Permit, and is broken into the five elements of the Permit.

- S.5.C.1, Public Education and Outreach
- S.5.C.2, Public Involvement and Participation
- S.5.C.3, Illicit Discharge Detection and Elimination
- S.5.C.4, Controlling Runoff from New Development, Redevelopment and Construction Sites
- S.5.C.5, Municipal Operations and Maintenance

Coverage of Section 7, Compliance with Total Maximum Daily Load Requirements, and Section 8, Monitoring, are also included in this document.

In addition, the Permit requires the City to submit an Annual Report by March 31st of each year that details actions taken in the previous year to achieve compliance.

The full text of the Permit is available at: www.shorelinewa.gov/stormwaterpermit.

City Coordination and Responsibilities

Permit conditions require internal coordination and documentation of activities across several City departments. The Public Works Department Surface Water Utility staff will coordinate City efforts, and will meet with staff from other departments regularly to ensure that on-going and planned activities meet Permit requirements. It is anticipated that activities required for Permit compliance will be carried out largely by the Public Works, Information Technology, Planning and Community Development, Parks, City Manager's Office (City Attorney), and Administrative Services departments. The Fire/Building and Police departments will be involved to a lesser extent.

The Surface Water Management Utility – Other Activities

This SWMP Plan details planned activities and that fall under the purview of the Permit. Stormwater management is one part of the City's overall surface water management strategy. The Surface Water Utility conducts a suite of programs that reduce flooding, protect and improve water quality, and protect and restore aquatic habitat in the City's streams and lakes. Although not directly required, flood reduction and aquatic habitat restoration efforts can often further stormwater management goals. For details on Surface Water Utility activities beyond this SWMP Plan, see the City website at <http://www.shorelinewa.gov/surfacewater> or contact the Surface Water Division of the Public Works Department at (206) 801-2450.

Permit Implementation Timing

The Permit allows for phased implementation of stormwater management programs and actions. Table 1 provides a Permit implementation schedule and due dates. Shoreline will continue to implement ongoing activities throughout the remainder of the permit term.

Table 1 Timeline for Implementation of Stormwater Management Program

Western Washington Phase II Municipal Stormwater NPDES Permit Overview – 2013 to 2018

The timelines below provide an overview of major program components deadlines (**By Date** means "...no later than...") for implementing permit requirements of S5 Stormwater Management Program (SWMP) for Continuing City, Town and County Permittees. Other permit elements are listed on the next page. This is guidance only; please see the permit for additional detail and related requirements.

S5 Program Component	August 1, 2013 Ongoing program implementation	2014	2015	2016	2017	Jan-July 31, 2018
A. Stormwater Management Plan	Continue to track costs, actions and activities. Continue required internal and suggested external coordination and SWMP Plan submittal w/annual report. Update SWMP Plan annually.		By March 31: annual rpt includes description of internal coordination			
C.1 Public Education and Outreach	Continue public education and outreach program. Measure changes in behavior for 1 audience & 1 topic.	Create or partner w/others to create stewardship.		By February 2: use measures of behavior changes to improve program.		
C.2 Public Involvement	Continue to provide ongoing opportunities for the public to participate in SWMP decision-making. Post online annual reports and SWMP Plan for previous calendar year by 5/31 of each year.					
C.3 Illicit Discharge Detection and Elimination (IDDE)	Continue implementing the enforceable mechanism to prohibit illicit discharges, compliance strategy, IDDE and municipal staff training, citizen hotline and IDDE response, and maintain map of MS4.				By Dec 31: Field screen at least 40% of MS4 & on average 12% each year thereafter.*	By Feb 2: Update ordinance if needed.
C.4.a-f Control Runoff from New Develop't, Redevelop't Construction Sites	Continue to implement ordinance addressing construction/post-construx runoff controls; make NOIs for construction, industrial stormwater permits available; site plan review & permitting, requiring long-term maintenance; inspections; training; and enforcement.			By Dec 31: Update SW code to revised Appx 1 standards; review, revise, make effective developmt codes to make LID preferred approach. **	By March 31: Submit summary of review & revision of codes to reduce impervious surface, protect vegetation, minimize SW.	Achieve at least 80% of scheduled inspections.
C.4.g Watershed scale stormwater planning (selected permittees)	(By Oct. 31, 2013 Phase I permittee notifies Ecology of selected basin and affected Phase II permittees; convenes planning process.)	(By April 1: Scope of work submitted to Ecology by Phase I watershed plan lead.)	Participate in planning process, if located within selected basin.	By Oct 1: Phase I lead submits final watershed scale stormwater plan to Ecology.		
C.5 Municipal Pollution Prevention, Operation and Maintenance	Continue implementation of MS4 maintenance; annually inspect SW trmt & flow control BMPs/facilities; spot checks; O&M & SWPPPs for municipal lands & facilities; staff training			By Dec 31: Update maintenance standards to revised manual/ code standards.**	By August 1: Inspect all catch basins or document alternatives if used. Plan to complete inspections every 2 years thereafter.*	Achieve 95% of inspections for municipal stormwater treatment/flow control BMPs/facilities and catch basins.

S8 Monitoring and Assessment

S8 Monitoring	August 1, 2013	2014	2015	2016	2017	July 31, 2018
S8.A	Continue to provide description in each annual report of stormwater monitoring or stormwater- related studies conducted by permittee or others (except if related to S8.B or S8.C).					
S8.B Status and Trends Option #1	<i>PS Permittees ONLY:</i> By Dec 31: Notify Ecology which option selected for status and trends monitoring.	<i>PS Permittees ONLY:</i> By Aug 15: First annual payment to RSMP.				
S8.B Status and Trends Option #2		By July 31: Begin monitoring wadeable streams.	Oct 1: Begin monitoring nearshore marine (if applicable).	Annual reporting as per Ecology-approved QAPP.		
C. Effectiveness Option #1	By Dec 31: Notify Ecology which option selected for effectiveness monitoring.	By Aug 15: Option #1 first annual payment to RSMP.				
C. Effectiveness Option #2		By Feb 2: Submit QAPP to Ecology. By Oct 1: Begin flow monitoring.	Oct 1: Stormwater monitoring program fully implemented.	Annual reporting as per Appendix 9.		
S8.D Source ID & Diagnostic Monitoring		By Aug 15: First annual payment to RSMP.				

Other significant elements of the permit

This is guidance only: see the permit for additional detail and related requirements.

S1 Application for coverage	Co-Permittees can end or amend agreements at any time.
S4.F Response to violations of Water Quality Standards	Notification and possible adaptive management may occur at any time.
S7 Compliance with Total Maximum Daily Load (TMDL) Requirements	Comply with applicable TMDL requirements listed in Appendix 2 per individual timelines.
S9 Reporting	Keep all records related to the permit for at least five years. Beginning March 31, 2015, submit a report for the previous calendar year using WAWebDMR or form provided by Ecology.
G3 Notification of Discharge Including Spills	Report to Ecology within 24 hours any discharge into or from the MS4 which could constitute a threat to human health, welfare or the environment.
G.18 Duty to Reapply	Apply for permit renewal no later than Feb. 2, 2018 (180 days before permit expiration).
G20 Non-compliance Notification	Notify Ecology within 30 days of becoming aware of permit non-compliance.

1 Public Education and Outreach (Permit Section 5.C.1)

The City of Shoreline's Surface Water and Environmental Services Division of Public Works has several programs in place to help residents and businesses understand stormwater pollution as a significant water quality concern. The City provides outreach to residents, schools, businesses, and government on ways to reduce actions that negatively impact our environment.

The City tracks education and outreach efforts, and informally tracks costs versus benefits of the efforts. Formal tracking information can be found in Appendix B of the Annual Report.

In addition to local programs and events, Shoreline is an active participant in regional education and outreach activities through Stormwater Outreach for Regional Municipalities (STORM) and Stormwater Outreach Group (SOG). Efforts of these groups include developing regional stormwater education campaigns and evaluation.

Table 2 (below) lists target audiences and behaviors that are currently being addressed by the City's education and outreach programs. These programs fulfill the Permit requirement to build general awareness. For the 2015 period, the City will continue its work in building general awareness about the stormwater problem.

In 2015, the City will select a target audience and BMP from the list given by Ecology to measure the understanding and adoption of the targeted behavior.

Table 2 Education and Outreach Programs Planned Activities

Item	Target Audience	Goal and/or Behaviors Promoted
Surface Water and Environmental Services Website	General Public	Reduce contaminants entering the storm drain system through educational information accessible on the City's website.
Earth Day Every Day/ Natural Yard Care Event	General Public and Homeowners	Promotion of natural yard care tools that help maintain lawns and gardens without chemical application and car washing techniques that minimize the amount of pollutants washed down storm drains.
Soak It Up Program	General Public; Land Owners	Continue rebate program for rain garden retrofits and native plant landscaping to community residents
Storm Drain Stenciling Program	General Public	Awareness; prevention of discharge of non-stormwater materials into the stormwater system; resident

		participation by involvement of citizen organizations and residents in the storm drain labeling process.
Adopt-A-Drain Program	Homeowners; General Public	Raise awareness of stormwater impacts and ways that citizens can reduce these impacts
Local Source Control Program	Businesses	Work with businesses to develop practical methods of reducing or eliminating discharge of non-stormwater materials into the stormwater system
Clean and Green Car Wash Program	General Public	Awareness; Reduction of vehicle wash water entering the storm drain system.
"Did You Know" factoid in the City's monthly Currents news publication	General Public	Raise awareness of stormwater impacts and ways that citizens can reduce these impacts
Park signage and pet waste stations encouraging people to pick up their pet waste (park rule or ordinance cited)	General Public; Dog Owners	Increase awareness of the importance of picking up pet waste
Booths and displays at various special and on-going events on Basic Stormwater Education	General Public	Raise awareness of stormwater impacts and ways that citizens can reduce these impacts
Environmental Mini Grant Program	General Public; Homeowners; Schools	Provides funding source for the general public to implement projects that increase awareness about the importance of using natural yard care, water conservation practices, keeping litter out of our waterways, and the importance of environmental stewardship

2 Public Involvement and Participation (Permit Section 5.C.2)

The City of Shoreline values public input on its stormwater programs. The City will provide ongoing opportunities for public involvement and participation through a variety of avenues.

The City encourages public input on the development, implementation and update of the City's Stormwater Master Program. This SWMP Plan and the annual report will be posted on the City's website no later than May 31st of each year. Public comments can be made directly at www.shorelinewa.gov/stormwaterpermit.

Other avenues for public input include:

- Updates of the City's Surface Water Master Plan. The first plan was developed in 2005 and updated in 2011. During the plan update process, the public can participate through several avenues, including open houses, public meetings, surveys, public review and comment periods and/or City Council meetings. In 2011, the public provided extensive comments on the City's Surface Water Master Plan which helped shape its development.
- The public can give input each year to the capital improvement plan and budget that details programs outlined in the current Surface Water Master Plan.

Table 3 Public Involvement and Participation Planned Activities

Item	Description	Schedule
Post SWMP Plan on City website	The SWMP Plan outlines actions to be taken within the year to comply with the NPDES Permit. The SWMP Plan is open for public comment.	Annually, by May 31 st
Post Annual Report on City website	Annual Report is submitted to Department of Ecology by March each year. The final Report is posted on the City's website.	Annually, by May 31 st
Accept public feedback on the City's SWMP Plan via website, email, or any other written form	The City encourages public comment on the SWMP Plan	Ongoing

3 Illicit Discharge Detection and Elimination (Permit Section 5.C.3)

One of the largest threats to the City's freshwater is illicit discharge. The City of Shoreline has an ongoing program to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges into the City's stormwater drainage system. This program has grown over the years and includes a variety of techniques and methods.

Table 4 Illicit Discharge Detection and Elimination Planned Activities

Item	Description	Schedule
Maintain maps of the City's stormwater drainage system (MS4)	Maintain and update maps of City's MS4 including points of significance, such as outfalls, waters of the state, stormwater facilities, and all known connections. Field staff is constantly verifying the mapped drainage system.	Ongoing
Review of the City's regulatory mechanism for IDDE	The City will be reviewing the regulatory mechanism and enforcement provisions to assure they are in compliance with Permit requirements.	2015
Continue to implement ongoing program to detect and identify non-stormwater discharges	The City will propose implementation of a field screening methodology consistent with the <i>Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments</i> , Center for Watershed Protection, 2004	2015
Update training for municipal staff that may encounter illicit discharges or connections as part of their normal job duty.	Several City staff positions may encounter water quality threats in the course of their routine work. These staff will attend an in-house refresher on those trainings.	2015
MS4 Screening	In 2015, the City will identify a methodology for screening at least 40% of the City's drainage network for illicit discharges and connections	Screening due by December 31, 2017
Update training for municipal staff directly involved in spill response, including information of proper cleanup and reporting techniques.	Several City staff positions respond to spills that may threaten water quality. These staff will be scheduled to attend an in-house refresher on those trainings.	2015

Track and record activities to meet IDDE requirements	The City uses a Work Order software to track efforts made in identifying, reducing and eliminating spills, illicit discharges and illicit connections.	Ongoing
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4 Controlling Runoff from New Development, Redevelopment and Construction Sites (Permit Section 5.C.4)

Section 5C.4 of the Permit requires that Shoreline develop, implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction site activities. This area of the permit has some of the most significant changes from the 2007 permit term to the current permit term. Among other items addressed below, the Permit intends to make low impact development (LID) the preferred and commonly-used approach to site development.

Controlling pollutant loads and reducing peak flows from developed sites is a long term goal of Section 5C.4 of the Permit. Ongoing maintenance of permanent stormwater facilities is critical in meeting this goal. To this end, under the NPDES Permit, stormwater facilities permitted since 2007 require proof of ongoing maintenance. To assure maintenance is completed, the City inspects several hundred stormwater facilities on a rotating inspection cycle. Through this inspection program, the City strives to assure that stormwater facilities are functioning as designed.

Table 5 Controlling Runoff from New Development, Redevelopment and Construction Sites Planned Activities

Item	Description	Schedule
Adoption of Minimum Requirements found in Appendix 1 for new development, redevelopment, and construction sites	The City's code adopted the <i>2012 Stormwater Management Manual for Western Washington (December 2014)</i> and the Minimum Requirements found in Appendix 1.	Ongoing
Permitting process	The current permitting process includes site plan review, inspections and enforcement mechanisms for compliance. Discussions to take place to comply with S5.C.4.c.iv	Ongoing
Long-term operation and maintenance of permitted stormwater facilities	The City of Shoreline requires covenants for inspection and maintenance on all new stormwater facilities, following the <i>2012 Stormwater Management Manual for Western Washington (December 2014)</i>	Ongoing

"Notice of Intent" availability	The City will continue to make copies of "Notice of Intent for Construction Activity" and "Notice of Intent for Industrial Activity" as required	Ongoing
Update training for municipal staff involved in controlling stormwater runoff in development	Training will be kept up to date for employees involved in any aspect of planning, development, inspection, enforcement of stormwater runoff controls	Ongoing
Low impact development (LID) standards reflected in City code	The City will begin reviewing and revising Shoreline Municipal Code and policies to identify where the new LID BMP standards should be incorporated, making LID the preferred and commonly used approach. The City will use a process similar to the one outlined in <i>Integrating LID into Local Codes: a Guidebook for Local Governments</i> (Puget Sound Partnership, 2012).	Identify staffing and/or consultant needs and scope of work. Review and revise in the 2 nd Quarter, 2015

Municipal Operations and Maintenance (Permit Section 5.C.5)

The City of Shoreline currently operates its Operations and Maintenance programs with the goal of reducing potential impacts to water quality. These programs use a variety of methods to meet that goal. The Roads Division follows guidance from the ESA Regional Road Maintenance Program Guidelines. The Surface Water Division implements a rigorous stormwater system inspection, maintenance, and cleaning program. The Parks Department adopted an Integrated Pest Management Program. Additionally, all City Maintenance Yards operate under a Surface Water Pollution Prevention Plan and are regularly inspected to assure compliance with the SWPPP.

Table 6 Municipal Operations and Maintenance Planned Activities

Item	Description	Schedule
Maintenance Standards	The City continues to use the <i>2012 Stormwater Management Manual (December 2014) for Western Washington</i> for maintenance standards. Roads / Right-of-Way: Continue to follow the ESA Regional Roads Maintenance Program Guidelines	Ongoing
Spot Checks	The City will continue to perform spot checks of known “hot spots” after major storm events	Ongoing
Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all municipal lands and associated with municipal operations	The City of Shoreline is committed to using applicable BMPs associated with runoff control during routine maintenance. Roads / Right-of-Way: Continue to follow the ESA Regional Roads Maintenance Program Guidelines Parks: Continue to follow an Integrated Pest Management Program	Ongoing
Update training for City staff whose work could impact water quality as needed	City staff will be trained as needed, with an in-house refresher offered in 2015	Ongoing
Implement a Stormwater Pollution Prevention Plan (SWPPP) for all maintenance and storage yards	The City has current SWPPPs for all maintenance and storage yards	Ongoing

Records of inspections and maintenance	The City uses a Work Order software to track inspections and maintenance / repair activities.	Ongoing
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5 Compliance with Total Maximum Daily Load (TMDL) Requirements (Permit Section 7)

There are no TMDLs in the City of Shoreline.

6 Monitoring and Assessment (Permit Section 8)

The Monitoring portion of the Permit has seen several significant changes for the new Permit term. Section 8 of the Permit covers Status and Trends Monitoring, Effectiveness Studies, and Source Identification and Diagnostic Monitoring (SIDM). In the first two categories, the City was given the option to either conduct its own qualifying Status and Trends Monitoring and/or Effectiveness Studies OR opt in to a regional collective fund. This fund will then be used to complete studies of regional significance. In the case of the SIDM, the City is required to pay into a collective fund.

One City staff is acting as an alternate on the Stormwater Work Group, a subgroup of the Puget Sound Ecosystem Monitoring Program. This group works to identify objectives for monitoring stormwater, to develop an approach to provide needed information about stormwater impacts and the effectiveness of stormwater management actions, and to share results in a way that helps the region make better decisions. See their webpage at www.ecy.wa.gov/programs/wq/psmonitoring/swworkgroup.html.

Opt In Decisions

In 2013, the City of Shoreline opted to contribute to the Regional fund for the Status and Trends Monitoring and Effectiveness Studies for the Permit term. The City will also contribute to the SIDM for the Permit term.

The Stormwater Work Group will be overseeing the work conducted with the regional collective funds. We expect to receive updates on this work periodically.